Article

A Qualitative Evaluation of the National Centers of Excellence in Women's Health Program

Robert M. Goodman, PhD, MPH, MA
Department of Community Health Sciences
School of Public Health and Tropical Medicine
Tulane/Xavier Universities
New Orleans, Louisiana

Margaret R. Seaver, MD, MPH
Boston University
National Center of Excellence in Women's Health
Boston, Massachusetts

Seunghyun Yoo, DrPH
Tulane/Xavier Universities
National Center of Excellence in Women's Health
New Orleans, Louisiana
Department of Community Health Sciences
Tulane University
New Orleans, Louisiana

Suzanne Dibble, DNSc, RN
University of California, San Francisco
San Francisco National Center of Excellence in Women's Health
San Francisco, California

Rachel Shada, MHR
Tulane/Xavier Universities
National Center of Excellence in Women's Health
New Orleans, Louisiana
Department of Community Health Sciences
Tulane University
New Orleans, Louisiana

Bonnie Sherman, PhD
Boston University
National Center of Excellence in Women's Health
Boston, Massachusetts

Farley Urmston, BA
Nancy Milliken, MD
University of California, San Francisco
San Francisco National Center of Excellence in Women's Health
San Francisco, California

Karen M. Freund, MD, MPH
Boston University
National Center of Excellence in Women's Health
Boston, Massachusetts

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Abstract A qualitative evaluation was conducted at 15 nationally designated Centers of Excellence in Women's Health (CoEs) that were funded by the U.S. Department of Health and Human Services' (DHHS) Office on Women's Health at the time of data collection. The evaluation focused on organizational issues including: 1) the impact of CoE designation on the recipient institutions; 2) the greatest strengths and challenges affecting the CoEs and their core components of research, clinical care, professional education, leadership, and community outreach; and 3) whether the core components developed an interface and coordinated with one another as intended according to the DHHS national model. A total of 91 individuals were interviewed for the evaluation. The study indicates that the national designation served to legitimize and expand the scope of women's health within the recipient institutions. The CoEs enhanced collaboration among researchers and practitioners, and were able to leverage additional resources. The core components largely were successful at interfacing in accordance with the national model. Notwithstanding these successes, the CoEs remain susceptible to failure if they do not gain additional support for the concept of women's health within the recipient institutions, and will not remain durable without additional and stable funding sources.

BACKGROUND

The National Centers of Excellence in Women's Health (CoE) program was initiated in 1996 by the U.S. Department of Health and Human Services' (DHHS) Office on Women's Health as a new model for university-based women's health care. It was designed with the goal of enhancing and integrating women's health care, education, and training both within and outside the university structure. This paper reports on a qualitative evaluation of the CoE program.

Since the initiation of the program, there have been three generations of awards. A total of 18 sites have been funded and, at the time of data collection for the present evaluation, there were 15 CoEs funded and operating at different stages of development, depending on what year their contracts were received. Although each CoE was unique in environment, the nature of the institution that housed it, and the types of individuals each involved, nevertheless, all were contoured to a national model that placed the utmost value on a multidisciplinary approach to women's health. The model consisted of five core components: research, clinical care, professional education, leadership, and community outreach.

In 1999, the Office on Women's Health initiated an evaluation study of the status of the CoE. As part of the evaluation, two study groups—one quantitative and one qualitative—were constituted. The quantitative evaluation focused on clinical care outcomes, whereas the qualitative evaluation focused on the Centers' developmental processes. Through a series of interviews conducted at each of 15 institutions housing the CoEs, the evaluators sought to understand organizational development issues including: 1) the impact of CoE designation on the recipient institutions; 2) the greatest strengths and challenges affecting the CoEs and their core components (i.e., research, clinical care, professional education, leadership, and community outreach); and 3) whether the core components developed an interface and coordinated with one another as intended according to the national model. The themes contained herein are considered to be main effects because they were pervasive in the data and were represented across all 15 CoEs.

Consistent with qualitative approaches to evaluation, the data findings are a reflection of the perspectives held by the interview respondents. Thus, the body of the paper consists mainly of quotations that represent the "voices" of the 91 respondents across the 15 CoEs and signify the main themes that emerged from the in-depth interviews. Where multiple quotations appear to

illustrate a theme, each quotation was drawn from a different CoE to further demonstrate how each theme generalized across the 15 CoEs that participated in the qualitative evaluation.

EVALUATION METHODOLOGY

The evaluation team was composed of representatives from three of the 15 nationally designated CoEs. In the year preceding data collection, the evaluation team developed a protocol for the qualitative interviews that were to be conducted, face-to-face, at the 15 CoEs. The dimensions included in the protocol were developed with input from staff at the Office on Women's Health, the Center Directors, and the evaluation specialists within the CoEs. The dimensions focused on the organizational processes that the CoEs confronted because, as an innovative way of delivering university-based health care for women, the CoEs and how they were received and supported become strategic considerations for future programming.

To ensure comparability during the interview process and to standardize data collection, the interviewers attended a one-day training session that focused on interviewing skills. Mock interviews were videotaped and the tapes were critiqued to refine the interviewers' techniques and to increase consistency of approach across interviewers. Once the data had been collected, the study team met again to standardize coding techniques.

The interviews were conducted on-site at the 15 CoEs. Interview respondents were selected based upon purposeful sampling procedures to ensure that interviewees complemented one another in completing coverage of all dimensions of the interview protocol.[1] At each of the 15 sites, interviews were held with a senior administrator (e.g., a chancellor, vice-president, or dean), the Center Director of the CoE, and the Directors of core components of the CoE. On average, six interviews were included at each of the 15 CoEs. Before each interview, the respondent was asked to read and sign an informed consent statement that assured confidentiality and the right to refrain from answering any question that was posed by the interviewer. All interview procedures, including informed consent, were approved by the Institutional Review Board of the centers leading the qualitative evaluation.

All interviews were tape recorded and transcribed verbatim. The written transcripts were then analyzed according to methods developed by Spradley[2] consisting of completing syntactical structures such as: 1) X is a type of impact that the designation as a CoE had on the recipient institution; 2) Y is an example of a strength or challenge of the CoE and its core components; 3) Z is an indication of whether the core components developed an interface and coordinated with one another. The evaluation team hand-coded each qualitative interview to fill in such statements and then entered the information into ATLAS.ti, a software package developed for qualitative research.[3] Once entered, the evaluators compared and contrasted codes so that a taxonomy of similar syntactical statements was formed. For instance, the codes for "impact of the designation on the recipient institution" were organized so that similar impacts that were coded were aggregated under one heading such as "greater credibility for women's health." The resulting taxonomy had several such headings with coded examples imbedded below each heading.

Once a taxonomy was developed for each of the 15 CoEs, the taxonomies were placed into data matrix display based on the procedures described by Miles and Huberman.[4] In the present study, a matrix was a two-by-two table with 15 columns, each composed of one CoE taxonomy. The rows of the matrix were composed of the taxonomy headings so that similar and dissimilar headings and codes could be compared across CoEs. Once the data were

arranged in taxonomies and matrixes, the evaluators organized the data by similar and contrasting patterns to represent the overarching themes that are reported in this paper.[5] These themes are illustrated with verbatim quotations to present the findings in the respondents' own words.

RESULTS

An Overview

Table 1 is a summary of the findings detailed in this section. As the table indicates, certain types of questions were directed to different interview respondents. For instance, institutional leaders and CoE Center Directors were asked about the impact of national designation on the institution because these leaders were positioned to provide an expansive overview of the CoE's history within the institution. As the CoE core component Directors had a purview that was more specific to the day-to-day operations of the CoE, they were asked about the strengths and challenges of their respective cores and the interface of their core with the others. This section first presents the impact of the designation on the institution as a backdrop for the CoE experiences. Then, the CoE strengths are presented. Next, the assessment of how the core components interfaced is presented because the interface proved to be an important strength. Then, the challenges faced by the CoEs are introduced and illustrated.

The Impact of Designation as a National Center of Excellence in Women's Health (CoE) on the Recipient Institution

Institutional leaders and the CoE Center Directors from all 15 centers who were familiar with the status and history of the CoE emphasized that the designation had a significant positive impact for women's health. As the following quotations illustrate, the foremost theme that emerged from these leaders was that the designation acted as a catalyst for institutional change in expanding the field of women's health.

Respondents indicated that before the development of the CoE, women's health was often viewed simply as reproductive health, and it was aligned with obstetrics and gynecology. With the development of a CoE, its clinical component provided care to women in a more comprehensive way and, with its companion components of research, education, community, and leadership, the CoE viewed health among women more broadly to include such aspects as cardiovascular care and other health risks as they present uniquely in women. Such a comprehensive focus led to the expansion of the concept of women's health as a discipline. The institutional leaders further emphasized that institutional change was most directly influenced by the CoE's application of an innovative model that served as a "driving mechanism" for change. The fact that, to maintain the designation as a CoE, each institution underwent a review of the multidisciplinary model, initially and periodically, reinforced institutional support for a more comprehensive approach to women's health:

> The CoE produced a sea change. It's led to radical change in terms of how we do everything having to do with women's health care.

> Despite all of the focus that we had on women's health, there was a strong focus in everybody's mind on reproductive health. The notion of multidisciplinary care of women that includes internists, surgeons, and all kinds of other people having a focus on women's health was validated.

> [The institution's leadership] recognizes that we do a lot of research at the Centers of Excellence, and that that's good because they are getting state-of-

Table 1. A SUMMARY OF THE EVALUATION FINDINGS BY STUDY DIMENSION AND RESPONDENT TYPE

Study Dimensions	*Institutional Leaders (Chancellors, Vice-Presidents, Deans)*	*CoE Directors*	*CoE Core Unit Directors*
Impact of National Designation on the Recipient Institution	-Catalyst for institutional change in the field of women's health -CoE model as a driving mechanism for institutional change -Increased leverage for attracting resources -Reinforced and increased collaboration		
CoEs' Greatest Strengths	-Stronger and durable collaboration and coordination	-Legitimized CoE image and women's health within the institution -Enhanced opportunities within the institution to focus on women's health concerns -Increased leverage for attracting resources -Multidisciplinary nature of CoE -CoE as an opportune place for women to associate -CoE as a magnet for shared identity and mutual action -CoE as a support system for networking	
CoE Core Units' Greatest Strengths			Leadership Core -Leadership development -Nurturing a network of female faculty and students
			Community Core -Increased focus on community needs and services -Greater reach in diverse communities
			Clinical Core -Service expansion and improvement
			Education Core -Greater focus on gender-specific health issues -Striving for greater diversity
			Research Core -Expanded focus on women's health issues -Greater coordination of research
Interface of CoE Core Units			See Table 2
CoE's Greatest Challenges	-Acceptance of the CoE mission within the institution -Greater integration, collaboration, and coordination -Adequate federal and institutional support		
CoE Core Units' Greatest Challenges		-Organizational climate -Resource insufficiencies -Operational constraints	

> the-art results. Before [the designation], the leadership didn't recognize the value of research. The CoE has played an important role in moving ahead the mission of women's care and gender-based medicine within the institution.
>
> The recognition that comes from the rigorous process of evaluation and designation is well recognized, both internal to the institution as well as the community-at-large, geographically, as being something that has great value. Women's initiatives that are in the community, for example, would have been much more difficult to do if they did not have a Women's Center of Excellence, and [DHHS] sponsorship. It is a source of pride to the institution.

The institutional leaders consistently mentioned the prestige accorded by designation as further legitimizing the CoE as a model for institutional change. The added prestige played a role in the development of women's health modules in the curricula of medical, public health, and other schools with allied health programs. Added prestige also had an influence on expanding clinical and research operations, and helped to sustain women's health initiatives within the institution:

> The designation has legitimized women's health as an area of academic pursuit.
>
> You get value out of [the designation] in a whole variety of ways. From the clinical side of the organization, it makes patients. From the research side of the organization, it brings in research grants with overhead. From the teaching side, it carries out a vital function that any modern medical school now has to have. It adds value, and, as something adds value, the institution supports it.
>
> [The designation] was one of the cornerstones of [the women's health program] becoming sustainable and developing a life beyond its current leadership. [The designation] confers a stamp of approval from a national judge. [Women's health] was legitimized.

The preceding comments reflect that the prestige accorded by national designation was instrumental in attracting resources that were both internal and external to the institution. Internally, resources were forthcoming when there was support for the CoE from high up within the institution. External resources, such as those from foundations and drug companies, came with the recognition that it was valuable to be associated with the CoE:

> One of the things we've been able to do with our CoE designation is leverage a lot of money successfully outside. I owe a lot of that—there's no question—to the fact that we have very high up support from the corporate structure of the hospital, and they're willing to use their leveraging capacity on our behalf.
>
> Drug companies have been coming to us because of the [CoE designation]. We've gotten funding for educational activities from pharmaceutical companies that have an interest or franchise in women's health, and they're coming to us because of that.
>
> The national designation is something that people are proud of, and they want to be known for excellence in women's health. It makes it easier for us to raise money locally. We have a campaign under way right now, and one of our campaign themes is the Center for Excellence in Women's Health. We've already raised some money.

In concert with the leveraging of funding, institutional leaders consistently discussed how the designation reinforced and increased collaboration within the center, across groups within the institution, and in the community-at-large. Examples of greater collaboration include expanding the network of researchers, clinicians, health educators, community representatives, and others who worked together on different aspects of women's health such as osteoporosis, depression, cardiovascular disease, and other health risks.

> A number of collaborations that I've participated in wouldn't have happened without the designation of the Center of Excellence. Either I wouldn't have known about it, or there wouldn't have been this mechanism set up for collaboration
>
> It's brought people together who may have been working independently on women's health, but now, as a group, give more strength to their individual efforts.

CoE's Greatest Strengths

Institutional Leaders' and CoE Center Directors' Perceptions of the CoEs' Greatest Strengths

As the quotations to follow illustrate, at all 15 sites the most thematic responses reflected that collaboration and coordination remained durable and strengthened programs that advance women's health, thus improving the ability to influence women's health. The respondents were consistent in crediting the CoEs and their development with the increased coordination among programs:

> People have told us that the CoE model for some reason hasn't really been done before. It's one thing to have a colloquium where you invite one person to come in and talk about their research—that happens all the time. But, this idea of really just getting people together to share what different people are doing with the idea that there may be a hook for somebody else to get involved has increased cross-disciplinary, cross-professional collaboration, and that's been really wonderful.
>
> Because I knew I had to accomplish A, B, C, and D, we had a lot of meetings where we put different people together at the table, so that's the strength of the [CoE]. We got a very disparate group of people, at the very least, talking to each other; and, at the very best, actually doing something based upon the talk. The value of the CoE was nudging along from the top to action.
>
> We've brought together a group of people who are very excited about something that they wouldn't have been five, six years ago. The CoE has a life of its own. I could disappear and it would continue, which is kind of nice to know. People come to us for things. Everybody, of course, thinks we have lots of money that we can contribute which we don't, but they come to us for ideas and for support and just collaboration. It's been a really remarkable experience.

CoE Core Directors' Perceptions of the CoEs' Greatest Strengths

The directors for each of the cores were asked about the strengths of their particular cores. The quotations that follow echo the statements made by the institutional and CoE leaders affirming that the CoE designation was instrumental in adding value to women's health by serving as the driving mechanism within the institution that enhanced opportunities to focus on the uniqueness of women's health. Designation acted as a driving mechanism because it was valued by the recipient institutions, it helped in making a case for differentiating women's health research and practice from that which focused predominantly on men, and it provided leverage for funding larger-scale research. Thus, the core directors felt that the designation helped to validate and advance their work within the larger institution:

> Probably the most important thing that [the designation] has done has been to send a signal to women faculty that this is something the institution values and that it's important. The fact that the Center of Excellence exists sends a pretty strong message.
>
> It's visibility to get this on the horizon for everybody to recognize that women are a unique component of the population. This came about because of the

national agenda which emphasized that, when you do research studies, women can't be just lumped together with men. The new initiative is that women are different and need to be looked at differently, and that's come from the national agenda. I don't believe a local agenda would have been capable of doing that.

We have a research program that tries to stimulate research and provide start-up money for people to begin to think about getting data that they can then use to go on to bigger things. It's a major occurrence that now there is this little source of money which is specifically directed at stimulating PIs to think a little bit more seriously about women's health.

The core directors also remarked that greater legitimacy was coupled with a stronger funding infrastructure and greater ability to leverage other funding:

The most significant thing is [the designation] has allowed us to leverage resources internally, on campus from other sources like the dean's office, to get some support for leadership development. . . .People understand that there are expectations associated with the designation. It puts people in the leadership in a difficult position to say, 'Oh, we're not going to do that,' or, 'we're not going to fund that.' If, on the one hand, they're touting themselves to the outside saying, 'we're a Center of Excellence in Women's Health,' and then, internally, we can't even get support for something as modest as our mentoring effort—so, in that sense, it helped.

The depth of the resources, clinically and in research, is phenomenal. The fact that we've been able to leverage the Center's stimulating endeavors in getting more funding for further development is really important. In terms of the clinical and research resources, it's been a real phenomenal leverage.

Much as the institutional leadership reflected upon integration and coordination of operations as a key factor in the CoEs' successes, the core leaders emphasized the multidisciplinary nature of the CoE as a major strength as indicated by the expansion of the types of specialists who teamed together:

One strength is that it's multidisciplinary. . . .It's more than reproductive health care. In clinical care, it's a variety of disciplines, not just Ob/Gyn. [We have practitioners from] psychiatry, internal medicine, family practice, and nutrition. . . .We have health and human development sciences that does a lot of clinical science. The school of public health has a contingent that's very interested in women's health. The value is that we have a breadth of types of science. It isn't only biomedical science that's valued here in women's health.

We were able to bring together our core group from a variety of disciplines—from research, from psychiatry, from primary care, and from pediatrics. That allowed us to provide approaches to outreach from many different levels.

The core directors further perceived the CoE as an ideal setting for professional women to congregate. It lent legitimacy to the pursuit of improved women's health, it spanned different departments and different schools, and it fostered increased association. Thus the CoEs became an environment for shared identity and mutual action:

We've managed to attract a group of women as a cadre of providers who have similar philosophies, who truly care about the women they're taking care of, and it's really unique to gather that many together in one place. I often think of how honored and privileged I am to be part of a group that works that well together.

[The center] was a resource for us because it pulled together people from across all the departments—inpatient and outpatient, other parts of the university, people who work on outcomes studies, people who work in basic research, and people who work in the clinical arena—pulled them all together to ask, 'what should we have in a curriculum for medical students?' It was easier because we had the whole group basically together.

> It's important that people self-identify as doing women's health research. In the past, they've been afraid to on this campus because it didn't have the status, and they didn't want to choose something that was lower status than their own clinical department.

The core directors further indicated that increased association through the CoEs provided a support system through networking opportunities. The networks went beyond collaboration within the home institution, extending to the CoEs as a national movement:

> There's a broad coalition of women brought together to head up the CoE who've been able to call on each other and help each other. That networking, both within the institution and outside the institution, is probably the best achievement. Knowing who it is in administration, who it is in research review that you can call on—it really is the 'old girls network' starting to evolve.

> The networking of the other CoEs together helps. You know somebody plus you know somebody's expertise at other places and you can invite them to come down.

> The networking and the mutual support that goes on at national CoE meetings is especially important.

CoE Core Components' Greatest Strengths

The core directors were asked to characterize the strengths of their respective cores since receiving national designation. The most prominent theme across all 15 CoEs concerned program enhancements in core operations. Those noted most prominently included leadership development such as mentoring; community outreach with an increased focus on community needs and services; clinical services that were expanded and improved; educational leadership that concentrated on gender-specific health issues and increased diversity; and research with a greater focus on women's health issues, coordination, and institutional support. The following quotations illustrate the program enhancements just cited:

Leadership

> We have a mentoring program for women faculty and students. . . And what it does is show young women in their first or second year of medical school access on a different plane to a woman faculty [member]. [The program] helps them see that women are in academic medicine.

> We said at the beginning we would expand our fellowship program. But when you get this many women interested in it, all of this builds on itself. . .

Community Outreach

> We've expanded our community centers. When you do that and you have a pretty successful model, the community comes back to you and identifies other areas where the community would like to see the same type of services. . . .I don't really have to advertise much of anything. We're getting calls all the time. We get calls from other places also, to use our facilities as research sites. I just had a meeting the other day with [a program representative] who asked, 'Can we do a program together? . . . Can we use your facility?'

> There's fair evidence in the literature that patients who ask the fewest questions need the most information. Lower socioeconomic patients and minority patients tend to be most intimidated by the health care system and ask the fewest questions. So, we go to them in their beauty shop, I'm sitting

in their church, and I am not in control. And so, that's been [our] greatest strength.

Clinical

We do a lot of screening for osteoporosis and we promote breast self-exams which go together at the clinic. A lot of patients [continue to] come to us after that experience. We have created awareness of the [importance] of providing more resources for the clinic, and are sensitive to [the needs of] our population. . . .Anything that is not the reproductive system was historically not considered part of women's health.

One of the early ones that came together here—it actually was slowly in the process of development before the CoE came into being—was the comprehensive breast care center which brings together medical oncologists, oncologic surgeons, radiation therapy, pathology, and radiology, and sees patients with breast disease or breast masses. They see patients who are referred for breast masses, and they do a very thorough and streamlined evaluation. So the woman makes one, maybe two visits, rather than a visit to the internist, a visit to the radiologist, a visit back to the surgeon for a biopsy, a visit back to somebody for discussion. It has really been our vanguard of the sort of programs that we would like to see developed.

Professional Education

There's a heightened awareness that women need to be treated differently, and present differently with a number of clinical symptoms and signs. That then spills down to professional education and the training of medical students, who then become house staff, who then will be the future physicians. As they go out, they will be different than the physicians today in the marketplace who came out of medical school believing that everybody was forty years old and was a white male, because every case you had in medical school was a forty-year-old, white male. The national agenda has made a big difference.

We have a cadre of graduate students, all of whom are women and who've worked with us very closely. They've come from a variety of different colleges and we've helped with their education as graduate research assistants.

Research

In looking at the behavioral aspects of care—and care here being in chronic illness—women are involved because they have an increased number of chronic illnesses. Even chronic illnesses that aren't women-directed, the women are usually the caregivers or supporters. By my involvement in the CoE—and chronic illnesses being foremost in my mind—it's pushed into all the areas of research. It has really changed.

[The CoE] added emphasis and helped to expand women's health research. That's a strength which is driven by the fact that the CoE has enhanced the research community within women's health. There's support and nurturing for it within the institution, and that has been its biggest strength.

CoE Core Directors' Perceptions Regarding How the Core Components Interface

Each CoE core director was asked "would you describe the interface of [your core component] with [each other core component] at your institution?" Across all 15 CoEs, the respondents reinforced that collaboration developed across the cores, thus enriching each of the core programs. Table 2 summarizes the

Table 2. A SUMMARY OF HOW THE CoE CORE UNITS INTERFACE

Core Unit Directors to Interface Unit	*Type of Interface*
Clinical about Research	Increased clinical involvement in research
Research about Clinical	Translation of research into clinical practice
Clinical about Education	Curriculum development in women's health
Education about Clinical	Provided education opportunities for clinicians
Clinical about Community	More clinician presence in the community
Community about Clinical	Feeder system for clinical services and research trials
Research about Education	Provided support for educational programs
Education about Research	Linked researchers on women's health through the CoE
Research about Community	Provided a focus for research
Community about Research	Developed strategies for recruitment into research
Education about Community	Provided educational awareness sessions and materials
Community about Education	Provided educational opportunities and materials
Leadership about Clinical	Supported professional growth and career development
Leadership about Research	Provided mentoring opportunities
Leadership about Education	Mentored junior faculty and students

relationship among the core programs and indicates that the CoE model, which emphasized integration among the core components, largely was achieved. The following quotations amplify the nature of the core interfaces that appear in Table 2.

Clinical core with the research core (increased clinical involvement in research):

> Because of the size of the practice that we have, I am asked to participate in clinical research primarily outside of my department.

> The clinical program allows opportunities for different people to develop research interests and then we present those at [our] meetings. Different people in the room have input. [It] helps fuel collaboration.

Research core with the clinical core (translation of research to practice):

> One of the reasons that our clinical care is so good is because we do a lot of women's health research in the clinical arena, and that then gets translated both to physicians who practice differently, as well as residents and students who are trained differently.

> Many of the behavioral studies that are going on are applied to clinical practice. For instance, the research on getting women into screening has impacted what we do in terms of delivery of care.

Clinical core with the education core (curriculum development in women's health):

> [The CoE has] brought up to the surface education on women's health and how we educate. Where do we address adolescent female health in our curriculum? The awareness was stimulated by participation from our dean and lots of faculty from the Center of Excellence.

We have created a women's health elective for residents and students since being designated, and people have been very responsive about participating.

Education core with the clinical core (providing educational opportunities for clinicians):

When we began, we worked with the clinical committee to say, 'What types of education do you need for your patients,' or, 'what can facilitate you helping your patients learn more?'

[We provide] specific training on how to conduct the questions as part of the clinical interview. We've had women present testimonies of their experience with physicians as a result of their victimization.

Clinical core with the community core (more clinical presence in the community):

Our hospital has always interfaced with its community, but I have not seen our hospital have so much of a patient education focus as the CoE has brought to our community. Prior to being designated as a CoE, I didn't go to the community frequently and give talks. Now, I go to the community frequently and give talks. We've always tried to have a community approach to delivering care, but bringing women's health messages to the community is a brand new thing for our institution since we got the designation.

Many of us are invited speakers for different women's groups in different organizations, and to other health care providers–family practice providers. Also, the Center of Excellence has enabled me to do community education with the minority population that we serve here at our home base.

Community core with the clinical core (access to clinical services and research trials):

In developing clinical services, we seek community input.

Any time we go out in the community, we're telling people that we have clinical trials. It's on our Web site. It's a link to make it as easy as possible for people to participate. We've also developed a series of brochures on women's participation in research, and one of them is for people who design research studies so that they know how to better design a study so that women can participate. The other brochure is one that talks about why somebody might want to participate in research, what are the risks and benefits, and know your rights as you participate in a study.

Research core with the education core (providing support for educational programs):

Clinical education. . .provides support for students to do research projects at various levels of training, or come out of their clinical training for differing periods of time and train in research methods.

Education core with the research core (linking women's health researchers):

It's through our professional education offerings that many researchers find each other.

We're actually cataloging efforts of [non-CoE] faculty that relate to women's health. We were surprised to learn that there were so many doing research on women, but have not identified themselves as women's health researchers.

Research core with the community core (community providing a focus for research):

> We either match a community with a researcher, or a researcher with a community where there is mutual interest and help to build that relationship so that it could be sustained.
>
> A lot of the research that goes on here pulls people from the community. Several of my grants take place in communities of low-income minority women.

Community core with the research core (helping to develop strategies for recruitment into research studies):

> We've conducted quite a few focus groups with different community-based agencies and their constituents to try to find out how we can better recruit women of color, in particular, to participate in clinical research and trials.
>
> Our committee is responsible for a couple of initiatives that influence the research arm. We're doing a symposium on the interface of gender, race, and community in terms of recruitment strategies for clinical researchers, and, out of that, we will help to develop a set of strategies for the school and researchers on how they can recruit minority women into research. One of our projects is focused on looking at the process of care outcomes for minority women [as] compared to other women because of the interface that we have between our community outreach and clinical services.

Education core with the community core (providing educational awareness sessions):

> We draw upon different faculty in the institution as well as in the clinical programs to give series of talks to women at the workplace. That was a big success in terms of the number of work sites to which we [were] invited to talk on a whole variety of different subjects. Then, we started church programs mainly with African-American churches. We went to lots of health fairs, lots of events and gave talks.

Community core with the education core (providing educational opportunities and materials):

> I'm most familiar with our internship program. We've been very successful at bringing in high school students, college students, grad students, and medical residents through the CoE and placing them according to their interests with faculty members. We've been very successful at helping young women see that there are lots of different avenues that you can take in women's health, and connecting them with mentors and opening up possibilities and opportunities for them. We've also had high school students who interned, went away to college, then came back and ended up working for the Center of Excellence.
>
> There were studies and investigations going on around serving specific minority populations and the reporting of these findings. The creation of a video in order to increase awareness about breast cancer was geared towards minority populations—geared towards women as a teaching tool.

Leadership core with the clinical core (supporting professional growth and career development):

> I ask chairs and division directors to identify women [for leadership opportunities]. For example, one woman was identified and she was then awarded a grant to attend a professional development program. She subsequently became the director at [a local] hospital.

> One of our leadership goals was to make sure that the appointment process accommodated as broad a group of contributors as possible, and that everybody knew the ground rules. We have a new clinician teacher ladder... where promotions are possible based on clinical and teaching excellence.

Leadership core with the research core (providing mentoring opportunities):

> We structured community-based research around junior faculty development. . . .It spawned mentoring around projects [and] proposals that were then submitted. We gave feedback as a way of mentoring junior faculty in the research domain. There was actually a very powerful connection through that activity.

Leadership core with the education core (mentoring junior faculty and students):

> There was a real attempt to do a better mentoring program. A lot of difficulties were identified for young women faculty. The CoE has worked most effectively here as a neutral sounding board—getting outside your department with your problems, aggregating the problems.

The CoEs' Greatest Challenges

Institutional Leaders' and CoE Directors' Perceptions of the Greatest Challenges Faced by the CoE

Challenges that were noted at all 15 sites (See Table 1) mainly revolved around the CoEs' acceptance, greater collaboration, and limited resources for CoE operations. The quotations to follow illustrate that acceptance, which was enhanced by the federal designation, also contributed, in some instances, to being a barrier to progress in women's health by isolating it within the institution. Similarly, collaboration could be hampered by "turf guarding," which caused some at the home institution to work separately from the CoE. Additionally, the demands on faculty time required for collaboration proved burdensome. Concerns over limited resources were universal and had an impact on the extent to which services could be offered:

> Insofar as people are interested in having this designation—and doing what it takes to have the designation—it's such a double-edged sword, because it has done so many negative things in terms of using people's time without reward and creating kind of a ghetto mentality for women's health. It makes women's health something that's a second-class discipline by under-resourcing it.

> The fact that [the CoE] focused on women's health is an inherent problem. It carries the problem that everything that's about women carries, that people are quick to trivialize it, quick to assume that we're talking only reproductive health issues.

> The only internal issue that has just driven me nuts is the clinical piece and who wanted to own the women's health issue. The turf issue has been just incredible. Some of the egos you sort of get used to, but it was kind of frustrating.

> I don't know that the CoE designation changes the usual interdisciplinary barriers. The medical school, especially on this campus, is distinctive but not unique for being revenue-oriented, and, therefore, not so into collaborating. That's the biggest challenge to interdisciplinary collaboration. The CoE helps, but it's probably a small help on a big problem.

> I don't get a sense that there are turf wars and that the issue is turf. Since the work that we all do is within our own departments, it's more like having two

parallel careers: You've got to have your career within your department, and then you're trying to develop this career outside the department. It just takes a lot of extra work to do both at the same time.

The clinical pressures are enormous, and try[ing] to move into anything extra that takes more time, even though it's a good part of clinical care, there's great resistance—'why do I have to do that too?'

In the beginning, I would have taken the Center of Excellence designation. . . .Now it will take money to sustain it. Now the projects are formed, public relations is here, and the idea is ensconced in the institution. So now, in order to do substantive things, we need money.

The existence and the development of these centers has paralleled a . . .clear, major cutback in funding to academic medical centers. The balanced budget really cut back Medicare funds, especially towards education. A lot of the Medicare funding that was so key to academic medical centers took such a big hit. . . .To some extent, the success of our program needs to be viewed in that light—that success should not be viewed in how much did we grow, but the fact that we survived over the last [several] years.

CoE Core Directors' Perceptions of the Greatest Challenges Faced By the CoE Core Components

Core directors at all 15 CoEs articulated challenges that fall under two main themes: organizational climate and resource insufficiencies (See Table 1). Climate challenges are reflected in comments regarding the nature of leadership, collaboration, and adequate time to accomplish the CoE mission. With respect to resource insufficiencies, core directors emphasized the need for more staff, time, and operational space to develop and sustain collaborations across departmental units.

Most of the heads of the departments are men. And, a lot of people feel that, until women are in more leadership roles, not much is going to change.

It's very difficult to move such a huge, complex organization, which is really a collective of organizations with dominant cultures and then many subcultures within each organization. So, it's very hard, through a leadership development effort, to dramatically change something. . . .Since designation, the challenge is, structurally, in the concept of the CoE. When you set this up, do you allow everyone to ghettoize women's health? Put all those troublesome women in one spot and the rest of the place doesn't have to deal with them. That's a risk. It hasn't happened here, but it's a constant struggle to make sure that you keep women's issues out there in the whole academic medical community and in the community at large, rather than saying, 'Oh, that's your problem now.' That's the balance.

The greatest challenge is to take someone who doesn't have intrinsic leadership capabilities or skills, and to provide them with mentorship, advice, and opportunity so that they can maximize their own potential. . . .It's the most difficult challenge we have right now, because when you look at how women do best in terms of growth, women can have mentors who are men, mentors who are of different races and ethnicities, but, somehow, the women who seem to do best—and this is written about over and over and over again—have, at some point in their careers, a woman mentor. When you look at the pyramid of women faculty, both here and nationally, the women at the top are pretty busy, the women in the middle are still trying to consolidate their own skills, and that leaves a big void in terms of who is going to mentor these junior women.

A lot of people view [the CoE], and kind of rightly so, that it's just additional work and additional demands for people that are running programs, and seeing patients, and writing grants. So, it's a little bit burdensome.

[When] the Request For Applications came out, we literally turned the institution upside-down to get the requisite components creatively advanced. And the process was good. The problem was the funding levels. Because we had reached out so intensively to different schools throughout the university as well as within the medical school, [we] had gotten a lot of people engaged and excited. The funding levels were dramatically different from what we originally had requested, so we were unable to provide the support that we had promised in the original budget to a lot of the collaborators. That was an inappropriate way to start a program, and it didn't start us off on the right foot.

Not having any money to work with, having no budget essentially, is a challenge! We have all kinds of great ideas that we would like to be able to do, but we don't have any money just to spend on doing them. So we spend a lot of time going around, basically begging, asking for assistance. Some departments are more willing to provide financial assistance than others. But overall, the medical climate being what it is, basically, the bottom line is, 'if you can't make money at it, it isn't going to happen.' So, we have certain projects that are on hold because we're trying to find a way to make them financially self-sustainable, and that's been frustrating. But that's American medicine today, and that's academic medicine today. You have to pay for it yourself.

We had to cancel three programs this term because I just don't have the staff, and I don't have the money to hire staff to do them.

Every academic health center, on the clinical side especially, is really being pressured to take care of more and more patients, and somehow still manage to squeeze teaching in. What that does is to push off the agenda those things that have historically always been considered the softest activities, like faculty development and mentoring. I see people having trouble finding common meeting time to just talk to each other within a department.

Right now our other biggest challenge is our space. [It] was not at all designed to be clinical space . . . The rooms are too small, people are sitting on top of each other.

We have been able to get space, but very slowly. Some programs arrived with an empty clinic and it was their job to fill it up. We arrived with a very small space and, as we have grown, we have begged for one more exam room. And then, we grow out of that space, and we beg for one more exam room. It's been interesting how we have had to chip away at the surrounding space and resources in order to do what we want to do.

DISCUSSION

The qualitative evaluation of the National Centers of Excellence in Women's Health (CoEs) focused on the organizational processes that occurred consequent to national designation. Specifically, the evaluation concentrated on assessing the impact of designation on the recipient institutions, the strengths and challenges the designated CoEs encountered as they developed, and how the national model and its emphasis on the five core components influenced development. The focus on such organizational processes is important considering that the CoE model is innovative in most academic health centers. Therefore, an appraisal of the experiences of the 15 CoEs may help to guide future attempts at innovating university-based women's health programming.

The qualitative assessment indicated that the national designation did have a substantial impact on the recipient institutions in widening the scope of women's health. The CoE model gained credibility as a concept within the recipient institutions and as a way of organizing research, practice, teaching, and leadership development within university-based academic health centers.

Consequent to designation, the Centers developed a core set of strengths that included developing and reinforcing multidisciplinary practices across and beyond the CoE core components. The networking across core components was one important influence that the national model had on CoE operations. Considering that the CoE program began only recently (1996), these accomplishments are considerable.

In reflecting further on the evaluation findings, several observations seem worth emphasizing. Funding for the Centers was modest; therefore, many of the CoEs' accomplishments rested on the dedication to purpose shared by those involved at all levels. Support by institutional leaders was an important factor in the degree to which the CoE model was embraced within the institution. The level of support from those involved within the core components was equally important, and often meant that core participants had to dedicate time and effort beyond the usual practice. The nexus of relationships that national designation stimulated also can be attributed to the level of effort that those affiliated with the CoEs devoted to their operations. The interconnectivity that resulted occurred at several levels, and foremost across the core components. A symmetry seemed to develop, as reflected in Table 2: clinicians became more involved in research, and researchers helped translate findings for application in the clinics; clinicians helped educators develop curriculum materials, and educators helped tailor materials for client recruitment and patient education; academic leaders helped mentor students, and students assisted in CoE practice and research—such reciprocal relationships were characteristic of the responses provided across the interviews. Those interviewed further described how the nexus of relationships extended to colleagues in other areas of the university, locally with community organizations and groups, and nationally with other CoEs. These connections had not been formed before CoE designation to the extent that they were afterward. Additionally, several of the quotations in the Results section suggest that the CoEs extended their activities into minority and underserved communities in ways that were not occurring before CoE designation. Therefore, the CoE program was an important catalyst for network development at multiple levels of operation.

The reported findings are consistent with those of Weisman and Squires[6] who compared 12 nationally designated CoEs with a cohort of non-CoE, hospital-sponsored women's health programs across the country. Weisman and Squires found that a main difference between nationally designated and non-CoE women's health centers was that the former integrated clinical programs to serve diverse women across the life span, as well as research, education and training, and community outreach, whereas the latter often did not. In Weisman and Squires' study, the programs that made up the national, non-CoE sample were more focused on singular issues (e.g., either clinical care, or reproductive care, or community relations). Moreover, the nationally designated CoEs were viewed as creating a network that linked clinical and administrative operations with other relevant pursuits such as provider education, leadership, and research. The dedication to the multidisciplinary aspect of women's health made the designated CoEs unique compared with what had existed prior.

Notwithstanding the considerable accomplishments of the CoEs in the relatively short period since the program began, many challenges remain that may compromise the durability of the Centers. Concerns about funding were raised universally. The funding structures of most academic health centers dictate that CoEs must compete for funding if they are to remain durable and develop further. Challenges and potential barriers to CoE development remain in the forms of competition for resources, time pressures exerted on those who affiliate with the Center, and the traditional organizational boundaries that

may cause turf conflicts. Several respondents also raised concerns about stereotypical attitudes towards women's health that place limits on its scope and relative importance. Were such attitudes to predominate, some fear that CoEs could become convenient repositories for isolating women's health as an unappreciated discipline, thus leading to its "ghettoization." Such concerns and uncertainties were plainly voiced, and they have implications for the ability to sustain the CoEs. CoE Directors expressed reservations about the magnitude of effort required to develop and maintain coordinated multidisciplinary initiatives, which, by their nature, place them outside of a department, thus increasing the workload. This, coupled with continued challenges, such as the lack of women in leadership positions, contributed to a sense of vulnerability regarding the CoEs' sustainability.

In conclusion, the evidence presented in this article suggests that the benefits of the national designation and model are remarkable, but susceptible to failure if not adequately supported in the future. The institutional gains in legitimizing women's health, in fostering collaboration across core components, and in extending services to diverse community groups are vulnerable to losing ground if the CoEs cannot continue to find funding support in the form of research grants, service contracts, and adequate cost reimbursement mechanisms for services. Moreover, support from senior leadership at the institutions that house the CoEs remains an important ingredient in ensuring that the CoE model is sustained. In the final analysis, part of the calculus for the future development of CoE programs should account for the sometimes uneasy interplay between the degree of dedication in time and effort required and received to support an innovative program like the CoE, versus the degree of challenge imposed by operating on limited resources, balancing additional responsibilities that come with being affiliated, and overcoming still present traditional institutional barriers.

REFERENCES

1. Patton MQ. How to use qualitative methods in evaluation. Newbury Park, CA: Sage Publications; 1987.
2. Spradley JP. The ethnographic interview. Fort Worth, TX: Holt, Rinehart and Winston; 1979.
3. Muhr T. ATLAS.ti: short user's guide. Berlin: Scientific Software Development; 1997.
4. Miles MB, Huberman AM. Qualitative data analysis. Beverly Hills, CA: Sage Publications; 1984.
5. Agar MH. Speaking of ethnography. Newbury Park, CA: Sage Publications; 1986.
6. Weisman CS, Squires GL. Women's health centers: Are the National Centers of Excellence in Women's Health a new model? Women's Health Issues 2000;10:248–255.